

Claims:

1. A method of deflavoring soy-derived materials comprising:
  - (a) preparing an aqueous composition of a soy material containing soluble soy proteins, flavoring compounds and insoluble materials,
  - (b) solubilizing the soy proteins by adjusting the aqueous composition of (a) to a pH in the range of about 9 to 12 and releasing said flavoring compounds;
  - (c) passing the pH-adjusted aqueous composition of (b) adjacent an ultrafiltration membrane having a molecular weight cutoff up to about 50,000 Daltons under suitable ultrafiltration conditions wherein said flavor compounds pass through said membrane, thereby deflavoring said soy material and retaining substantially all of said solubilized soy proteins.
  - (d) recovering the retained deflavored soy proteins.
2. A method of Claim 1, wherein said soy material is at least one member of the group consisting of soy milk, soy protein isolate, soy concentrate and soy flour.
3. A method of Claim 1, wherein said aqueous composition of (a) has a concentration of soy material in the range of about 1 to 20 wt %.
4. A method of Claim 1, wherein said ultrafiltration membrane has a cutoff in the range of 1,000 to 50,000 Daltons.
5. A method of Claim 4, wherein said ultrafiltration membrane has a cutoff in the range of 10,000 to 30,000 Daltons.
6. A method of Claim 1, wherein said ultrafiltration is carried out at a temperature in the range of 10 to 60°C and a suitable pressure.
7. A method of Claim 1, wherein said ultrafiltration membrane is a polymer or ceramic membrane.

8. A method of Claim 1, further comprising the step of recovering the flavor compounds passed through said membrane.
9. A method of Claim 1, further comprising the step of recycling a portion of the retained proteins to said membrane and adding water to replace water removed with said flavor compounds
10. A method of deflavoring soy-derived materials comprising:
- (a) preparing an aqueous composition of a soy material containing soluble soy proteins, flavoring compounds and insoluble materials;
  - (b) solubilizing the soy proteins by adjusting the aqueous composition of (a) to a pH in the range of about 9 to 12 and releasing said flavoring compounds;
  - (c) passing the pH-adjusted aqueous composition of (b) adjacent an ultrafiltration membrane having a molecular weight cutoff up to about 50,000 Daltons under suitable ultrafiltration conditions and separating as permeate the flavor compounds and water passed through said membrane and separating as retentate the aqueous composition depleted by permeate removal;
  - (d) passing the flavor compounds and water separated in (c) adjacent a reverse osmosis membrane and separating water passed through said reverse osmosis membrane;
  - (e) recycling water separated in (d) and the retentate separated in (c) to the aqueous composition of step (b);
  - (f) recovering the flavor compounds leaving the reverse osmosis membrane after water separation in step (d);
  - (g) withdrawing as a deflavored soy material a portion of the retentate;
  - (h) recovering the deflavored soy material from the withdrawn portion of step (g);

11. A method of Claim 10, wherein said soy material is at least one member of the group consisting of soy milk, soy protein isolate, soy concentrate and soy flour.
12. A method of Claim 10, wherein said aqueous composition of (a) has a concentration of soy material in the range of about 1 to 20 wt %.
13. A method of Claim 10, wherein said ultrafiltration membrane has a cutoff in the range of 1,000 to 50,000 Daltons.
14. A method of Claim 13, wherein said ultrafiltration membrane has a cutoff in the range of 10,000 to 30,000 Daltons.
15. A method of Claim 10, wherein said ultrafiltration is carried out at a temperature in the range of 10 to 60°C and a suitable pressure.
16. A method of Claim 10, wherein wherein said ultrafiltration membrane is a polymer or ceramic membrane.
17. A method of Claim 10, wherein said decaffeinated soy material is continuously withdrawn from said retentate.
18. A method of Claim 10, wherein said decaffeinated soy material is withdrawn periodically from said retentate.
19. A method of Claim 10, further comprising the step of adding fresh water to the aqueous composition of step (b).
20. A method is decaffeinating soy-derived materials comprising:
  - (a) preparing an aqueous composition of a soy material containing soluble soy proteins, flavoring compounds and insoluble materials;

- (b) solubilizing the soy proteins by adjusting the aqueous composition of (a) to a pH in the range of about 9 to 12 and releasing said flavoring compounds;
- (c) passing the pH-adjusted aqueous composition of (b) adjacent an ultrafiltration membrane having a molecular weight cutoff up to about 50,000 Daltons under suitable ultrafiltration conditions and separating as permeate the flavor compounds and water passed through said membrane and as retentate the aqueous composition depleted by permeate removal;
- (d) recovering the flavor compounds from the permeate;
- (e) recycling the retentate of (c) to the aqueous composition of step (b);
- (f) adding water to the combined retentate and aqueous composition of (b) to achieve a predetermined concentration of soy materials;
- (g) repeating steps (c) through (f) until the flavoring compounds have been removed in the permeate.

21. A method of Claims 20, wherein said soy material is at least one member of the group consisting of soy milk, soy protein isolate, soy concentrate and soy flour.
22. A method of Claim 20, wherein said aqueous composition of (a) has a concentration of soy material in the range of about 1 to 20 wt %.
23. A method of Claim 20, wherein said ultrafiltration membrane has a cutoff in the range of 1,000 to 50,000 Daltons.
24. A method of Claim 23, wherein said ultrafiltration membrane has a cutoff in the range of 10,000 to 30,000 Daltons.
25. A method of Claim 20, wherein said ultrafiltration is carried out at a temperature in the range of 10 to 60°C and a suitable pressure.

